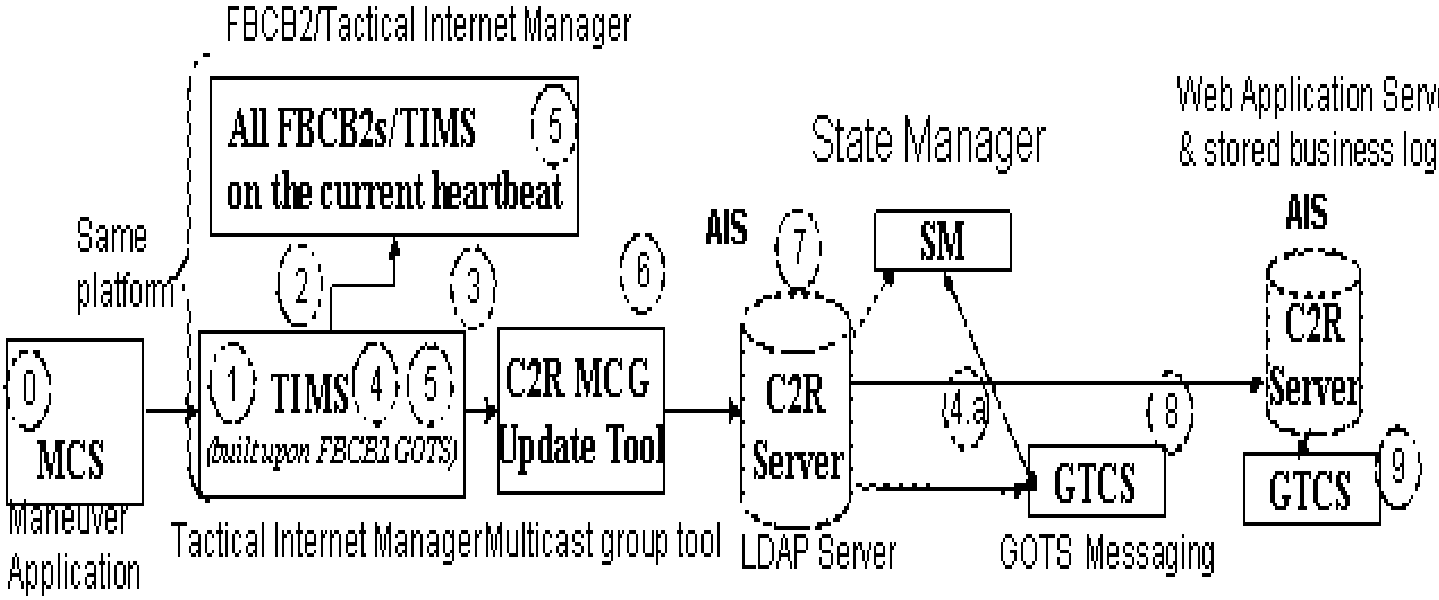

0 Maneuver Control System (S3) operator generates and transmits consolidated Unit Task Organization (UTO) to TIMS / FBCB2 Operator (S6).

1. TIMS (Tactical Internet Management System) Operator (S6) populates "Hasty Reorg Tool" generates new UTO with next UTO version number, effective date/time and synchronization time (K00.99, option: UTO Notification)

2. S6 Sends out initial UTO message. FBCB2 processes UTO notification & sets timer to execute change at effective time

3. Heartbeat Process:(TIMS/FBCB2 engine) generates "Heartbeat" message every 15 minutes with the current UTO version Number (K00.99, option: System Heartbeat). MG (multicast group) sent via Multi Cast (MC). FBCB2 process checks advertised version with internal version to ensure synchronization and reconfigures if different

4A GTCS (Ground Tactical Communication Server) passes heartbeat to State Manager. (Variable Message Format or VMF)

4/5. At effective date/time, (All) FBCB2s reconfigures database appropriately to ensure proper SA calculation, generate new INC MIBs and distribution lists

- Operator prompted to reconfigure or delay 10 minutes (w/option to change at anytime)
- When Operator oks, rebuilds database and reconfigures

6. TIMS generates new MCG file, and if required, TOC INC MIB(s), & TOC Router Configurations automatically @ effective time
   - TIMS calls the ModifyMCGInfo API (Subnet filename, MCG filename, Unit URN, UTO version, Local IP Address)
   - Executes C2R MCG Update Tool passing in a multicast group file, UTO version number, and the AIS (Army Information Server e.g., server running a number of supporting processes/apps to connect to (will ignore if it already has one set).

7. C2R (read LDAP server) MCG Update Tool Update multicast group data on the configured AIS.

8. C2R ServerRecognizes that a UTO has occurred and notifies the State Manager (SM) if it is there. Otherwise it just sends out the alert SM (State Management) would have sent. Replicates multicast group data to all configured UTO replication destinations.

9. GTCS gets alert, reads updated MCG from C2R, updates internal configuration files and LAN card if unit is affected

Figure 1: Current Tactical Heartbeat Mechanism in System

Method to enable a heartbeat for Homeland Security

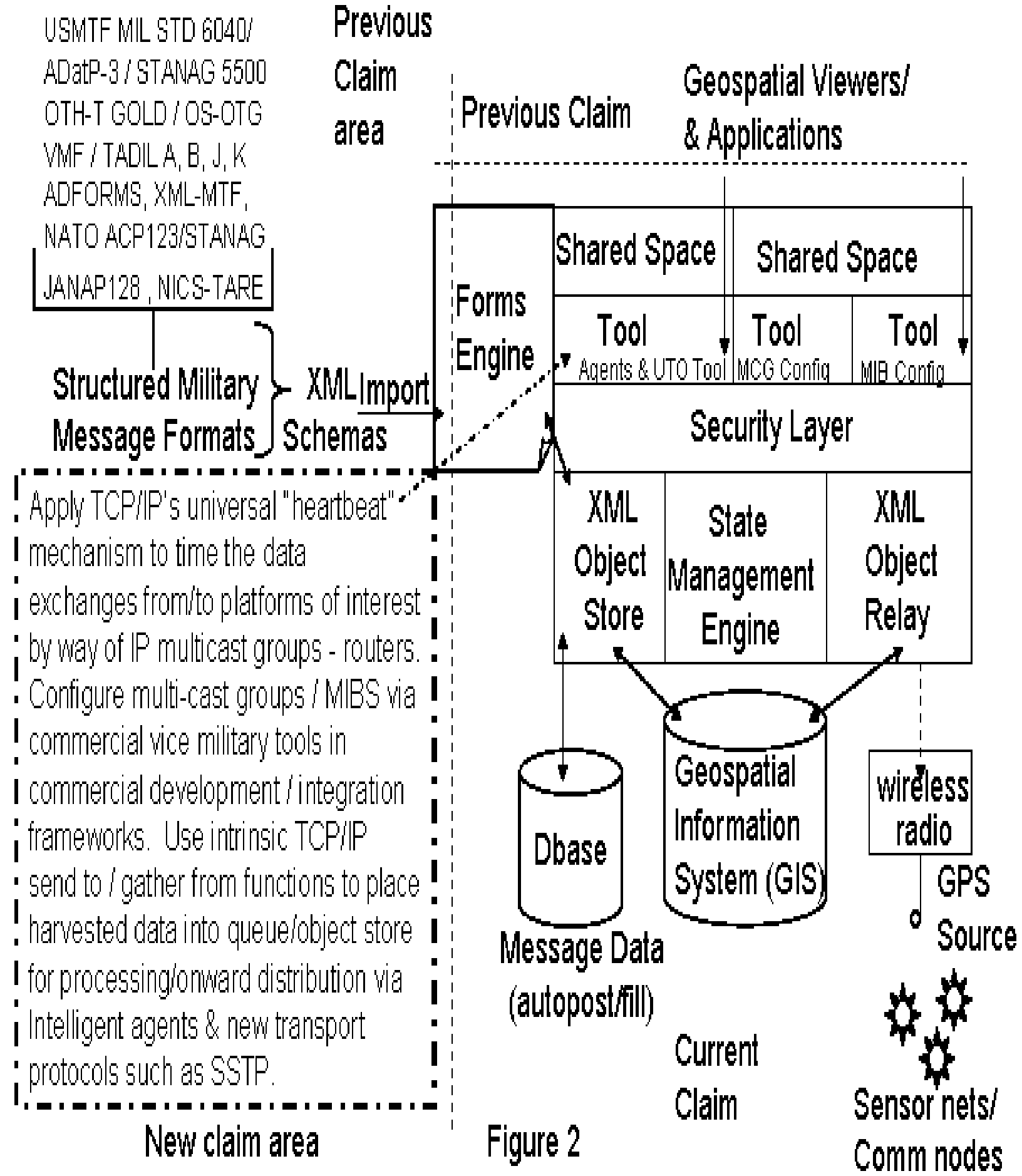

Figure 2